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Niat pembelian pengguna produk label hijau di Pulau Pinang.

Abstrak

Perhatian pada pemanasan global dan isu-isu alam sekitar telah menimbulkan kebimbangan dan perhatian daripada orang ramai serta kerajaan, korporat dan sarjana. Ini mencerminkan kesedaran pengguna mengenai isu-isu alam sekitar telah meningkatkan potensi industri produk label hijau. Walaupun pengguna menunjukkan kebimbangan dan kesedaran terhadap alam sekitar, namun adakah ini diterjemahkan kepada tingkah laku yang betul masih kekal sebagai soalan yang terbuka. Namun pengguna menunjukkan kebimbangan terhadap alam sekitar, pengguna tidak mempunyai niat untuk membeli produk label hijau.

Tujuan kajian ini adalah untuk memahami niat pembelian produk label hijau, menggunakan faktor-faktor peramalan daripada Teori Gelagat Terancang, Teori Norm Pengaktifan dan faktor demografi. Kajian ini menghipotesis bahawa niat pembelian pengguna produk label hijau akan dipengaruhi oleh tingkah laku pro-alam sekitar, sikap terhadap alam sekitar, norma subjektif, kawalan tingkah laku, kesedaran tanggungjawab, kesedaran akibat, norma peribadi dan demografi. 108 set sampel tinjauan diterima daripada orang awam dan diuji dengan menggunakan kaedah analisis statistik.

Kajian ini menunjukkan bahawa dua model teori, iaitu Teori Gelagat Terancang dan Teori Norm Pengaktifan menyokong antara satu sama lain dan berfungsi lebih baik daripada model individual untuk meramal niat pembelian; menghairankan bahawa pembolehubah demografi tidak mempunyai pengaruh yang besar ke atas niat pembelian pengguna di Pulau Pinang. Di samping itu, hasil kajian ini juga menunjukkan bahawa terdapat pengguna yang bersedia untuk membeli produk label hijau memandangkan kesedaran terhadap tanggungjawab mereka yang dipengaruhi oleh pembolehubah peribadi-normatif (Teori Norm Pengaktifan) dan kawalan tingkah laku (Teori Gelagat Terancang), yang secara statistik yang bermakna untuk meramal niat pembelian untuk produk label hijau. Oleh itu, firma tidak harus mengabaikan kesedaran tanggungjawab pengguna terhadap alam sekitar. Kesedaran yang

dicipta dari media massa dan pelbagai program pemasaran tidak boleh dipandang rendah. Kesedaran berpotensi meningkatkan kesedaran tanggungjawab yang mengaktifkan norma peribadi dan mempengaruhi pengguna membuat pembelian antara produk label hijau dan produk bukan label hijau.

Penyelidikan masa yang akan datang harus meluaskan liputan sampel ke luar negeri dan menggunakan model teori yang berbeza untuk mengenali faktor-faktor lain yang boleh meramal niat pembelian produk label hijau dengan lebih berkesan.

Consumer's purchase intention for green label product in Penang.

Abstract

The exploding attentions on global warming and environmental issues have raised concerns and attentions from public as well as governments, corporate and scholar. This reflects the realization of consumers on environmental issues which raised the significant potential of green label product industry. Even though consumers may show concerns and awareness on the environment, yet is this being translated to the right behavior remains an open question. Despite consumers show concern towards environment, consumers do not have the intention to purchase green label products.

The purpose of this study is to examine the purchasing intention on green label product, using the predicting factors from different theories, namely Theory of Planned Behavior and Norm Activation Theory with demographic variable. The study hypothesized that consumer purchase intentions of green label product will be a function of pro-environmental behavior, environmental attitude, subjective norm, and perceived behavioral control, awareness of responsibility, awareness of consequences, personal norm and demographics. The survey samples of 108 sets from general public were received and tested using statistical analysis method.

The study revealed that two theoretical models, Theory of Planned Behavior and Norm Activation Theory complimented each other and behaves in more superior to having individual model to predict purchase intentions; surprisingly the demographic variables do not have significant influence on the consumer purchase intentions in Penang. In addition, the results of this study also indicated that there are consumers who are willing to purchase green label products in view of their acknowledgement of their responsibilities with personal-normative variable (Norm-Activation Theory) and perceived behavioral control (Theory of Planned Behavior), which statistically-significant predictors of purchase intentions for green label products. Hence, firms cannot afford to ignore the consumers' acknowledgement of responsibilities they have on the environment. The awareness created from mass media and various marketing program should not be underestimated. The awareness potentially

increased the awareness of responsibilities which activated personal norm and influence consumer's choice of purchase between green label products and non green label products.

The future research should extent the samples to cross countries and tested using different theoretical model to fit other predicting factors that may impact the purchase intentions of green label products.

CHAPTER 1 INTRODUCTION

1.0 Introduction

In recent years, a lot of attentions were being placed on global warming and environmental issues. This reflects the rising concerns and awareness of global warming and environmental issues from public as well as governments, corporate and scholars. Everyone played a role in contributing positively on global warming. From international arena, through the Earth Summit in Rio de Janeiro in 1992 and its follow-up summits in Berlin in 1995 and in New York in 1997, international co-operation and action have been discussed and targets were set (Keating, 1993). Numerous regulations and laws has been passed for the protection of the environment for corporate and countries; some have been forced to adopt sustainability practices in response to public pressures from non-government organizations (NGOs) and governments. For example, the Shell Oil's Brent Spar controversy of the mid 1990s, the Nike child labor controversy as described by Klein (2000), and the 2010 BP Oil spill in the Gulf of Mexico have increased public awareness of the importance of sustainability and environmental issues.

Many companies feel the impact of market forces, such as changing of buying habits towards green label products or boycotting companies that do not practice environmental sustainability in their operations. Some companies embraced sustainability for market reasons, adopting green products to pleased environmentally sensitive consumers. Green consumers has always remained a niche market that is worth venturing for, as evidenced that British green consumer considered as "sleeping giant" (Worcester, 1995).

It has been suggested that up to 70 percent of consumers have occasionally considered environmental issues in their shopping behavior (Wagner, 1997). Surveys of environmentally oriented consumer behavior indicated that the number of consumers who include environmentally oriented considerations in their buying decisions has been comparatively stable (Worcester 1996).

The 1992 Rio Earth Summit Conference (Agenda 21) emphasized the need to change consumption patterns at the individual level, which has since been focus of related research on consumer behavior and sustainability (Perico, 2005). Olander and Thorgersen (1995) maintained that consumer behavior is a prerequisite to environmental protection.

Even though consumer has the urge to change consumption patterns, consumers may find it difficult to access the environmental friendliness of the products. The intention to introduce green labels (eco-labels) is to make it possible for the consumers to distinguish products less harmful to the environment comparing to the other products. Further, there are results from a number of studies suggest that two of the major reasons why consumers choose eco-labeled food products are consideration for the environment and/or for their own health (Chinnici, D'Amico, & Pecorino, 2002; Davies, Titterington, & Cochrane, 1995; Fotopoulos & Krystallis, 2002).

Hence, development that is sustainable and not damaging to the planet is very possible; it all starts from a very small action from an individual and company to mitigate this urgent issue.

1.1 Background of the studies

1.1.1 What is sustainable development?

The phrase “sustainable development” has been bandied about since the 1992 Earth Summit in Rio de Janeiro, Brazil, focused attention on the Earth’s degraded state. The Third Assessment Report (TAR) (IPCC, 2001) defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. It deepens the triple bottom line, strengthening the importance of people and planet. Hence it is pursued so that we all can have a preferable future that includes a cleaner environment, a sustained level of economic development without excessive waste and pollution, and the protection of natural resources and biodiversity.

Human impacts on the Earth in few general ways through the changes in the global that are critical to life, mostly in relation to water, oxygen, carbon, nitrogen and phosphorus, large part of it are contributing to global warming. It is clear that human activity do have significant effect on all of these cycles. Many parties are now involves in the assessment of all aspects of the carbon cycle to identify opportunities to address human-induced climate change in view of the potential catastrophic effects that may brings on human communities. Other human impacts on the atmosphere include the air pollution in cities, the pollutants including toxic chemicals like nitrogen oxides, sulfur oxides, volatile organic compounds and the chlorofluorocarbons that degrade the ozone layer.

The sustainable development goal is to raise the global standard of living of human mankind without increasing the use of resources beyond globally sustainable levels; that is, to not exceed "one planet" consumption. "Unsustainable development" occurs when the development of maximizing human well being for today does do not take into account of future generation, leading to decline of future well being. "Unsustainable development" puts human at risk. Some of the implications of "unsustainable development" involve over-exploiting of natural resources including fresh water, land and air, which the effect of global warming are the most prominent.

1.1.2 Sustainable development from Malaysia context

From Malaysia context, the Malaysian government has responded positively to sustainable development. With Malaysia's growing diplomatic influence in the world, Malaysia has embrace to sustainable development. Malaysia had participated in global environmental endeavors such as the United Nations Conference on Human Environment (UNCHE) held in Stockholm in 1972, and signed the 26 principles of the Stockholm Declaration and Action Plan (Malaysia, 1971)

Malaysia's economic success had earned global respect and confidence. Being the leader of the Group of 77, Malaysia began to be acknowledged as spokesperson of the South. Malaysia began to champion the position of the South at international meetings (Taib, 1997; Law, 2003). Malaysia, as Chair

of G-77, drafted the Langkawi Declaration on Environment and Development, endorsed by the Members, which incorporates concepts of equitable sharing of responsibilities benefits and defines the ability of developing countries to respond to environmental challenges.

Another recognition of Malaysia's leadership role in sustainable development is evident with the appointment in 1993 of Malaysia as the founding Chair of the United Nations Commission of Sustainable Development (CSD).

The environment was given a high priority in Malaysia's overarching long-term policy objective, Vision, 2020. The National Development Policy stated the need to "ensure that in the pursuit of economic development, adequate attention will be given to the protection of the environment and ecology as to maintain the long term sustainability of the country's development" (Malaysia, 1991). It also stated that "Nature and natural resources conservation will also be given priority through a responsible and well-balanced exploitation of natural resources which will safeguard the requirements of future generations" (Malaysia, 1991)

The establishment of the Environmental Statistics Section in the Department of Statistics Malaysia in 1998 by the Federal Government of Malaysia, which played a strong role towards enhancing national ability to assess progress towards sustainable development in Malaysia. These statistics will serve to address the need for information on two primary concerns of sustainable development which is the depletion of natural resources and neglect of new scarcities, and degradation of environmental quality (Department of Statistics, 1998)

Sustainable development requires collective actions not only from the government but the private sectors as well are also playing a strong role. In today's borderless world, business decisions can and do have a greater impact on people's welfare and the environment, than the decisions of most governments. Hence the participation of private sector in sustainable development is crucial.

BCSRM REPRESENTATION



Based on 2011-2012 Members

Figure 1.1: Industries of BCSRM Representation.

United Nations Development Programme's (UNDP) aim is to engage business directly through Corporate Social Responsibility and public-private partnerships to support of national development which are consistent with the development thrust of the Ninth Malaysia Plan (2006-2010). Companies may contribute by getting their staff involved in project activities and contribute to local and national development initiatives. It seeks to build link private sector employees with sustainable development and environment issues viewing from different perspectives. (WWW.undp.org.my)

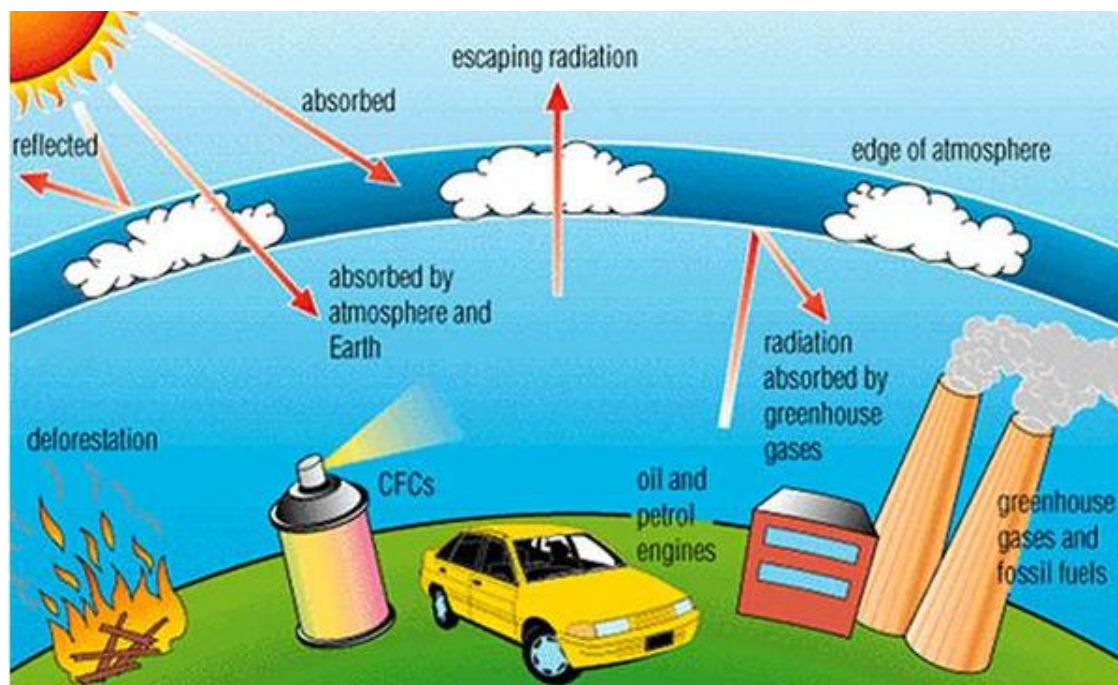
It is clear that both public and private sector are not neglecting sustainable development, but working hand in hand to generate awareness and community involvement, revolving the key issues on global warming, energy, social development, ecosystem protection and the business role in sustainability.

1.1.3 What is global warming?

Global warming is defined as the observed and projected increases in the average temperature of Earth's atmosphere and oceans. It is viewed as a gradual change in long-term average conditions, greater variability within the range of "normal conditions" and changes in the types of extreme events which are possible or probable (Hare, 1991).

Many scholars (IPCC, 1992) believe that all the greenhouse gases, emitted through various human activities, have been causing the current climate warming and that the warming is severely threatening the earthly environment which human species has been staying in the past and the present.

The Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report projects that the Earth's average surface temperature will increase between 2.5° and 10.4°F (1.4°-5.8°C) between 1990 and 2100 if no major efforts are undertaken to reduce the emissions of greenhouse gases (the "business-as-usual" scenario). This is significantly higher than what the Panel predicted in 1995 (1.8°-6.3°F, or 1.0°-3.5°C), mostly because scientists expect a reduced cooling effect from tiny particles (aerosols) in the



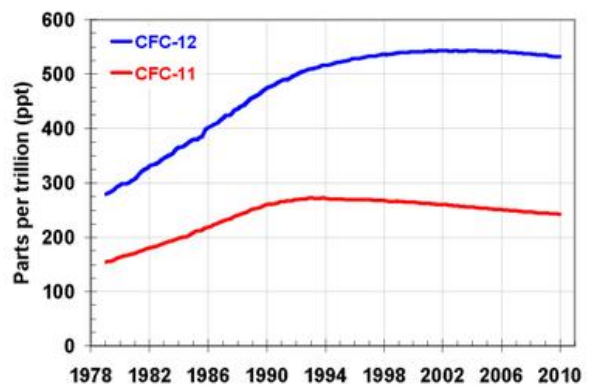
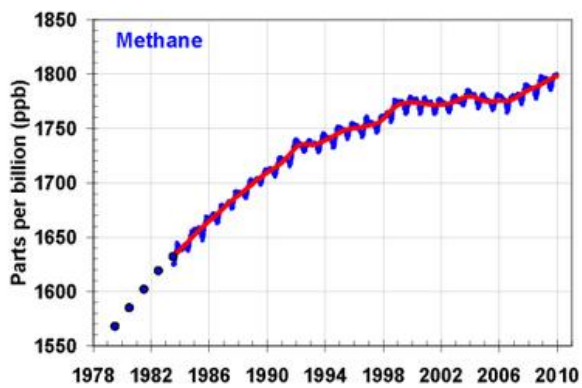
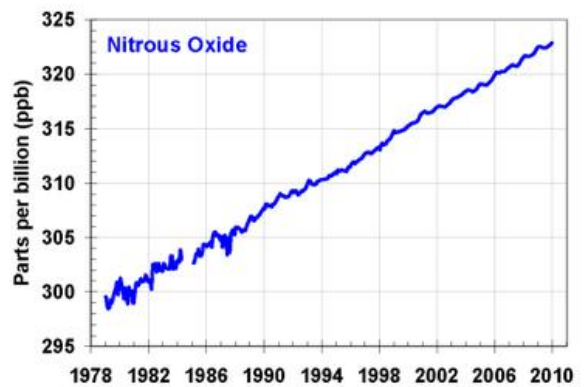
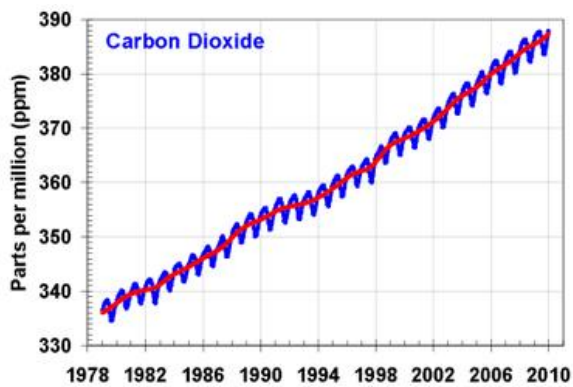


Figure 1.3: Major greenhouse gas trends showing the up-ward trend over the years.

Gore (1993) believes that the “global warming is the most severe threat human species has ever faced”, which is going to be a “disaster of being drowned”. The planet is warming, from North Pole to South Pole, and everywhere in between. The Mother Earth has already showed many signs of worldwide climate change as evidence below

- 1) A report in the Pakistan Daily Times of June 5, 2009, pointed out ominous outcomes of climate change for Pakistan. It reads:

“Indian defense scientists have found that temperature in the North Western Himalayan range, spread over Kashmir and Himachal Pradesh and the source of most Indus line rivers and their tributaries, have risen by nearly 1.4 degree Celsius over the last 100 years. The average level of warming for the rest of the globe is 0.5 to 1.1 degree Celsius per century. They also found that lesser snowfall, followed by an early thawing of snow, has resulted in a changed water balance in the catchments. Since Pakistan gets most of its water from these catchments, the study forecast a disastrous situation for the coming years. The study said the glaciers in the Himalayan region had shrunk considerably in the last three decades, indicating a major ice-loss”.

- 2) Russia: First time ever that Moscow, Russia having the hottest summer with recorded temperature of 38°C. The drought caused hundreds of wildfires in forests and covering western Russia with toxic smog. The Russian capital’s death rate doubled to 700 people a day at one point. The drought reduced the wheat harvest by more than one-third. The 2007 IPCC report predicted a doubling of disastrous droughts in Russia this century and foreseeing catastrophic fires during dry years which would suffer large crop losses. (The Star Online, 2010)
- 3) Pakistan: The heaviest monsoon rains on record (300mm in one 36-hour period) have sent rivers rampaging over huge swaths of countryside caused 14 million Pakistanis homeless or affected, and killed 1,500. The Pakistani Government calls it the worst natural disaster in the nation’s history. The

2007 IPCC report said rains have grown heavier for 40 years over north Pakistan, and predicted greater flooding this century in south Asia's monsoon region. (The Star Online, 2010)

- 4) China: China is experiencing its worst floods in decades in the north-west province of Gansu. Floods and landslides killed at least 1,117 people and left more than 600 missing, either being swept away or buried beneath mud and debris. The IPCC reported in 2007 that rains had increased in northwest China by up to 33% since 1961, and floods nationwide had increased sevenfold since the 1950s. (The Star Online, 2010).
- 5) United States: In Iowa, heavy flood from three nights of rain forced hundreds left their homes and killed a 16-year-old girl. The international climate panel projected increased U.S. precipitation this century with more extreme rain events causing flooding. (The Star Online, 2010)
- 6) The Arctic: A 260 sqkm chunk of ice was spotted calved off from the great Petermann Glacier in Greenland's far north-west by researchers. It was the most massive ice island to break away in the Arctic in a half-century of observation. (The Star Online, 2010)

If warming continues, the frequency and intensity of extreme events are expected to change, even with relatively small mean climate changes. A follow-up report by the IPCC released in April 2007 warned that if not action taken to mitigate global warming, large-scale food and water shortages may happen and bringing catastrophic effects on wildlife and human life.



Schlegelmilch et al. (1996) indicate that the increase in environmental consciousness has had profound impact on consumer behavior whereby the green product is expanding at a fast pace.

While the government and the corporate throughout the world contribute their part in slowing down and reversing global warming, consumers can begin contributing by making smart choices during their daily purchasing activities. Think green when making purchases. For instance, if you looking for a new car, buy one that will last-long and have the least impact on the environment, such as a hybrid car that provided fuel efficiency over the long haul while reducing the carbon in the environment. Similarly, using more energy efficient electric appliances such as refrigerators and air conditioners, which were Energy Star rated products. This contributed to the environment with less energy usage, save money, and helps protect the environment, preventing more greenhouse gas emissions.

Choosing organic food with balance nutrition, taste and ecological impact is another way a consumer can contribute in reducing global warming. Other motivations of nutrition, taste, curiosity and the need to protect environment have been mentioned in key international research (Tregear et al., 1994; Davies et al., 1995).

And when purchasing wood products, such as furniture or flooring, buy used goods or wood certified products, ensuring the products have been sustainably harvested. The Amazon and other forests are not just the lungs of the earth; they may also be humanity's best short-term hope for slowing down climate change.

Environmentally responsible consumption originated from criticism that the marketing concept ignored the impact of individual consumption upon society as a whole (Feldman, 1971; Kotler, 1972; Lavidge, 1970). In response to “the challenge of rising consumption to human survival”, Fisk (1973) called for government, consumers and business to consider the environmental costs and benefits when making consumption decisions. Fisk (1973, 1974) stressed that consumers should reduce their consumption of resources in scarce supply and substitutes their current products for ones that are

ecologically less damaging. Webster (1975) defined a socially conscious consumer who takes into account the public consequences of his or her private consumption or who attempts to use his or her purchasing power to bring about social change.

1.1.6 What is Green Label?

Green label (Eco label) entered mainstream environmental policy-making in 1977, when the German government established the Blue Angel program. Eco label was defined as signs “which are demonstrated to a consumer or a professional buyer, and which symbolize environmentally beneficial consumer choices” (Boström, 2006). Since that time, green labels received great attention in the international for achieving environmental objectives.

The intention behind the introduction of green label is to make it possible for the consumers to distinguish a product is less damaging to the environment or to the people making it than other similar products. Furthermore, capability of providing environmentally friendly products may create a competitive advantage to the producers and allowing them to gradually push less environmentally friendly products out of the market. Such a competitive advantage could give companies an incentive to develop new, and more environmentally benign, products (Thøgersen, 2002).

Results from a number of studies suggest that two of the major reasons why consumers choose eco-labeled food products are consideration for the environment and/or for their own health (Chinnici, D’Amico, & Pecorino, 2002; Davies, Titterington, & Cochrane, 1995; Fotopoulos & Krystallis, 2002; Harper & Makatouni, 2002)

The recognition of a label is, however, not the same as understanding even the approximate meaning of it. Several studies have found that consumers often have a hard time in understanding what labels are intended to communicate, and uncertainty about what a label means could be associated with mistrust (Thøgersen, 2002). Thøgersen showed that consumers pay attention to and use environmental labels in their buying decisions only if they trust such labels. Attitudes towards eco-labels were positively







Awareness is an important element for consumer to change despite other things. According to Schlegelmilch et al. (1996), the increased of environmental awareness has had an effect on consumer behavior where consumers' environmental consciousness may impact on their purchasing decisions.

Awareness can be promoted by having awareness campaigns, which provide information that is either aimed at helping individual make better decision such as purchase of energy saving light bulbs or aimed at sharing the negative consequences on the consumption of non green label products such as the use of plastic bags. Some efforts were done to raise awareness: the United Nations' Climate Change Outreach Programme provided "governments additional tools for promoting climate change awareness at the national level (WWW.unep.org); and the World Wildlife Fund's "Earth Hour", which occurs on the last Saturday of March annually, involve more than 370 cities and 50 million individuals turning off non-essential lights and appliance up to 1 hour. (WWW.worldlife.org)

People are very contradictory when comes to their purchasing behavior and environmental concern. At one hand, people are aware on and expressing concerns towards the issue of global warming; on the other hand people refuse to change their behavior to reduce the effect of global warming. In fact, global warming in general, and consumer behavior in particular are becoming an integral part of our daily activities.

Many studies venture into different theories to pro-environmental behaviors. The Theory of Planned Behavior, which has been applied to predict green consumer behavior and the effectiveness of the theory, has been confirmed (Bamberg, 2003; Chan and Lau, 2001; Kalafatis et al., 1999). Past research also shown that pro-environmental behaviors performed by the same individual are not significantly correlated (Tracy and Oskamp, 1983-1984) where an individual who performs one type of such behavior, e.g. carpooling is also expected to engage in other similar behaviors such as recycling. Personal (knowledge, motivation or attitudes) and situational (social norms, other attractive choices or economic constraints)

factors may also confound the relationship between environmental attitudes and behavior (Mainieri et al., 1997).

Each theoretical system has proven to be helpful in understanding the relationship between suggested variables and pro-environmental behavior, but none has explained the individual variance from the individual exposure to sustainable development. This study aims to fill the gap on the predicting factors that influence consumer pro-environmental purchase intentions basing on Theory of Planned Behavior and Norm Activation Theoretical system, taking into consideration whether with or without the exposure to sustainable development.

1.3 Research Questions

The purpose of this study is to seek a better understanding on pro-environmental purchase intention of green label product, what are the factors may influence the consumer purchasing intentions, with or without the exposure to sustainable development. A further understands on the reason why despite the concern towards environment, consumers do not have the intention to purchase green label products. Therefore, this research is aim to address the following questions:

- 1) What are the predicting factors basing on Theory of Planned Behavior theoretical perspective towards pro-environmental purchase intentions on green label products?
 - 1.1) What is the relationship of environmental attitude towards pro-environmental purchase intentions on green label products?
 - 1.2) What is the relationship of pro-environmental behavior towards pro-environmental purchase intentions on green label products?
 - 1.3) What is the relationship of subjective (social) norm towards pro-environmental purchase intentions on green label products?
 - 1.4) What is the relationship of perceived behavioral control towards pro-environmental purchase intentions on green label products?

2) What are the predicting factors basing on Norm Activation theoretical perspective towards pro-environmental purchase intentions on green label products?

2.1) What is the relationship of awareness of responsibility towards pro-environmental purchase intentions on green label products?

2.2) What is the relationship of awareness of consequences towards pro-environmental purchase intentions on green label products?

2.3) What is the relationship of personal norms towards pro-environmental purchase intentions on green label products?

3) How do demographics, viewing from age, gender and monthly gross household income, influence pro-environmental purchase intentions on green label products?

1.4 Research Objectives

This study is intent to examine the purchasing intent on green label product, studying from different theories, namely Theory of Planned Behavior and Norm Activation Theory. Having these theories combined, enable this study to incorporate various variable to examine the complexity of human behavior. It enables the examination of the explanatory power of each model by comparing the ability of each model to explain the behavioral intention to purchase green label product.

This study has three research objectives:

- 1) To identify which predicting factors in Theory of Planned behavior influence pro-environmental purchase intentions on green label products.
- 2) To identify which predicting factors in Norm Activation Theory influence pro-environmental purchase intentions on green label products.
- 3) To examine the demographic variables influence pro-environmental purchase intentions on green label products.

1.5 Scope of Study

Green label products were chosen as the study in the consumer behavior towards awareness on global warming. For the purpose of this study, green label products covers environmentally friendly products-- such as recycled paper products, nontoxic household cleaners and personal products, and organic foods which contains green labels.

The study included the general public of Penang consumers.

1.6 Significance of Study

There have been relatively few researches done on consumer behavior on green label products specifically in relation to the influences of factors to purchase intentions of green label products. However, there has been a whole wealth of research, attempting to profile the environmentally conscious members of the population. The measures that have been used fall into two distinct categories: socio-demographics, such as sex, age, education and social class (Schlegelmilch, Diamantopoulos and Bohlen 1994), and personality measures, such as personal norms, self-interest and altruism (Wall et al, 2007; Cordano et al., 1990)

Personality variables have been found to have somewhat higher linkages to individuals' environmental consciousness (Kinnear, Taylor and Ahmed, 1974; Schwepker and Cornwell, 1991). However, while this is true for general environmental measures, the results are somewhat inconsistent for specific pro-environmental behaviors, such as green purchasing decisions (Balderjahn, 1988).

For the purpose of this study, the predicting factors towards the purchase of green label products were examined, viewing from few theoretical models. Awareness about climate change is very fundamental for a person to accurately appraise the level of future threat without which one cannot advance with rational choice of adaptation (Grothmann and Patt, 2005). Profound knowledge of consumers may shape the consumer behavior towards the decision on buying green label products.

By understanding the relations of awareness of global warming with consumer purchasing pattern, it will help scholars in the formulation of the education course guide and marketers in the formulation of

marketing strategy in penetrating to green label products market, ensuring their products compete competitively in the industry.

1.7 Limitations

The scope of this study is limited to a small geographical area, namely Penang consumers. Even though Penang consumers may come from urban, suburban and rural areas, but the demographics may not be representative of the overall population of the green label products industry. This limitation can be reduced by choosing the sample profile that is similar to the whole population at large.

The study involves a survey of attitudes of consumer behavior where it is very subjective and hard to define, whether the respondents really reflect what they meant when performing the survey. In other words, the answer provided by the respondent during the survey is similar to what they would behave in real situations.

Self-administered questionnaire will be used to collect the data for this study. There might be the possibilities of respondent do not return back their feedback on the survey, causing the results may not be representative of the whole population.

1.8 Definitions.

Awareness: In this study, we will use the definition of awareness as the increasing level of consciousness about risk and reduction of exposure to hazards (ISDR, 2004); where people having some understandings about the effects of global warming to the environment and its probable impacts.

Attitudes: A person's enduring favorable and unfavorable evaluations, emotional feelings, and action tendencies toward some object or idea (Kotler et al., 13th Edition, 2009).

Consumer: A consumer is someone who can make the decision whether or not to purchase an item anywhere, and someone who can be influenced by marketing and advertisements. For the purpose of this study, the consumer will be limited to consumer of green products.

Global warming: In this study, global warming is defined as the observed and projected increases in the average temperature of Earth's atmosphere and oceans. It is viewed as a gradual change in long-term average conditions, greater variability within the range of "normal conditions" and changes in the types of extreme events which are possible or probable (Hare, 1991).

Product/green label product: For the purpose of this paper, the product will be referring to environmentally friendly product, such as recycled paper products, nontoxic household cleaners and personal products, and organic foods with green label. Green label products minimize the damage or harm some production methods can have on our air, water, soil, animal life, and plants.

Purchasing pattern: For the purpose of this study, the purchasing pattern covers the typical manner in which consumers purchase goods in terms of amount, frequency and timing.

2.0 Introduction

An analysis of the literature in regards to pro-environmental consumer purchase behavior is assessed in this session. In this context, relevant literature on consumer pro-environmental purchase behavior is covered along with a description of Theory of Planned Behavior by Fishbein and Ajzen (1980) and Norm Activation Theory (Schwartz, 1977). This chapter also includes a thorough review on consumer pro-environmental behavior literature and summarized in table format. Overall, all discussions in this chapter are planned to support the above-suggested research framework.

2.1 Theoretical Review

There are many researchers done related to the prediction of pro-environmental purchase intentions. It is consider as a popular topics in area of consumer marketing, social psychology, environment and behavior to further understand the contributing factors that influence the pro-environmental purchase intentions of consumers. Many theories and literatures were used to test and predict the pro-environmental behavior, including Theory of Reasoned Action, Theory of Planned Behavior, Norm Activation Theory, Value-Belief-Norms Theory and Reference Group Theory. Each of these comes with its strengths and limitations in its ability to explain pro-environmental purchase behavior on green label products.

The Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) has been widely used as a model for the prediction of behavioral intentions and/or behavior. It posits that behavioral intentions, which are the immediate antecedents to behavior, are a function of salient information or beliefs about the likelihood that performing a particular will lead to a specific outcome (Ajzen & Fishbein, 1980). The behavioral beliefs are claimed to be the underlying influence on an individual's attitude toward performing the behavior, whereas the normative beliefs influence the individual's subjective norm about performing the behavior. TRA was used in Cordana et al.(1990)'s studies to test the pro-environmental

behavior intention, van Birgelen et.al (2009) uses TRA to investigate how ecological considerations relate to consumer purchase and disposal decisions and Zhang Lei et.al (2011) explores the consumption mode of green electricity using the TRA.

Theory of Reasoned Action (TRA) was criticized for neglecting the importance of social factors that in real life could be a determinant for individual behavior (Grandon & Peter P. Mykityn 2004; Werner 2004). Social factors mean all the influences of the environment surrounding the individual (such as norms) which may influence the individual behavior (Ajzen 1991). To overcome TRA's weakness, Ajzen (1991) proposed an additional factor in determining individual behavior in Theory of Planned Behavior which is Perceived Behavioral Control. Perceived behavioral control is an individual perception on how easily a specific behavior will be performed (Ajzen 1991).

In Theory of Planned Behavior (TPB), perceived behavioral control was included and in the study by Madden et al. (1992) tested that the inclusion of perceived behavioral control significantly enhance the prediction of intentions and target behavior and TPB explained significantly more variation than the TRA. The results by Madded et al.(1992) studies indicate that increased precision in the prediction of intentions and target behaviors could be achieved by assessing perceived behavioral control over the behavior. In the study by Wall et al (2007), TPB was used on testing the pro-environmental behavior and anticipate drivers' intentions to reduce or maintain their car use for commuting. In predicting recycling behavior by study by Oom Do Valle et al.'s study (2005), TPB was used to predict the recycling involvement and result confirmed that TPB is a good starting point for the modeling of recycling behavior. TPB was also used to examine the consumer purchase intention for organic care product and organic food product in the study by Kim and Chung (2011) and Thorgersen and Lander (2006).

Shalom Schwartz (1970) advanced a theory of moral decision making to explain individuals' altruistic behavior, which known as Norm Activation Theory (NAT). It further proves that the activation of personally held moral norms influences pro-social behavior, including pro-environmental behavior. In